Serial No.: To Be Assigned

Filed : Herewith Page : 3 of 13

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## **Listing of Claims**:

1. (Original) A compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof

(1)

wherein

R<sup>1</sup> and R<sup>2</sup> independently represent H or C1 to 6 alkyl; said alkyl being optionally further substituted by an aryl ring or an aromatic heterocyclic ring containing 1 to 3 heteroatoms independently selected from O, S and N; said aromatic ring being optionally further substituted by halogen, CF<sub>3</sub>, C1 to 4 alkyl or C1 to 4 alkoxy;

Serial No.: To Be Assigned

Filed: Herewith Page: 4 of 13

Each R<sup>3</sup> and each R<sup>4</sup> independently represents H or C1 to 6 alkyl; said alkyl being optionally further substituted by OH, C1 to 4 alkoxy, C1 to 4 alkylthio, amino, N-alkylamino or N,N-dialkylamino;

or R<sup>3</sup> and R<sup>4</sup> are bonded together so as to form a 3 to 7 membered ring; said ring optionally incorporating one heteroatom selected from O, S(O)<sub>q</sub> and N;

m represents an integer 1, 2 or 3;

X represents a group S(O), S(O)<sub>2</sub> or C(=O);

R<sup>5</sup> represents H or C1 to 6 alkyl; said alkyl being optionally further substituted by halogen, OH or C1 to 6 alkoxy;

Y represents a direct bond;

or Y and R<sup>5</sup> are bonded together such that the group –NR<sup>5</sup>Y– together represents a 4 to 7 membered saturated or partially unsaturated azacyclic ring; said azacyclic ring optionally incorporating one further heteroatom selected from O, S(O)<sub>n</sub> and N; said azacyclic ring being optionally benzo fused; said azacyclic ring being optionally substituted by C1 to 6 alkyl, C1 to 6 alkoxy or OH;

L represents a direct bond;

Attorney's Docket No.: 06275-522US1 / 101414-1P US Applicant: Anders Eriksson et al.

Serial No.: To Be Assigned Filed : Herewith

Page : 5 of 13

or L represents O, S(O)<sub>p</sub>, C(O), NR<sup>6</sup>, C(O)NR<sup>6</sup>, NR<sup>6</sup>C(O), C2 to 6 alkynyl, C2 to 6 alkenyl, C1 to 6 alkyl, C1 to 6 heteroalkyl or C3 to 6 heteroalkynyl; said alkyl, alkenyl or alkynyl group being optionally further substituted by halogen, OH or C1 to 6 alkoxy;

n, p and q independently represent an integer 0, 1 or 2;

G<sup>1</sup> represents a monocyclic, bicyclic, tricyclic or tetracyclic group comprising one, two, three or four ring structures each of up to 7 ring atoms; each ring structure being independently selected from cycloalkyl; cycloalkenyl; heterocycloalkyl; unsaturated heterocycloalkyl; aryl; or an aromatic heterocyclic ring containing 1 to 3 heteroatoms independently selected from O, S and N; with each ring structure being independently optionally substituted by one or more substituents independently selected from halogen, hydroxy, CHO, C1 to 6 alkyl, C1 to 6 alkoxy, halo-C1 to 6 alkoxy, amino, N-alkylamino, N,N-dialkylamino, alkylsulfonamino, C2 to 6 alkanovlamino, cyano, nitro, thiol, alkylthio, alkylsulfonyl, alkylaminosulfonyl, C2 to 6 alkanoyl, aminocarbonyl, N-alkylamino-carbonyl, N,N-amino-carbonyl;

wherein any alkyl radical within any substituent may itself be optionally substituted with one or more groups selected from halogen, hydroxy, C1 to 6 alkoxy, halo-C1 to 6 alkoxy, amino, N-alkylamino, N,N-dialkylamino, N-alkylsulfonamino, N-C2 to 6 alkanoylamino, cyano, nitro, thiol, alkylthio, alkylsulfonyl, N-alkylaminosulfonyl, CHO, C2 to 6 alkanoyl, aminocarbonyl, N-alkylaminocarbonyl, N.N-dialkylaminocarbonyl and carbamate;

and wherein any alkyl radical is a C1 to 6 alkyl radical;

and when G<sup>1</sup> is a bicyclic, tricyclic or tetracyclic group, each ring structure is independently joined to the next ring structure by a direct bond, by -O-, by C1-6 alkyl, by C1-6 haloalkyl, by

Serial No.: To Be Assigned

Filed : Herewith Page : 6 of 13

C1-6 heteroalkyl, by C2-6 alkenyl, by C2-6 alkynyl, by sulfone, by CO, by NR<sup>7</sup>CO, by CONR<sup>7</sup>, by NR<sup>7</sup>, by S, or by C(OH), or each ring structure is fused to the next ring structure;

R<sup>6</sup> and R<sup>7</sup> independently represent H or C1 to 6 alkyl;

and when the group -NR<sup>5</sup>Y- represents an azacyclic ring and L represents a direct bond, the group G<sup>1</sup> may also be spiro fused to the azacyclic ring;

- 2. (Original) A compound according to claim 1, wherein X represents S(O)<sub>2</sub>.
- 3. (Currently amended) A compound according to claim 1-or 2, wherein  $R^1$  and  $R^2$  each represent hydrogen.
- 4. (Currently amended) A compound according to any one of claims 1 to 3 claim 1, wherein  $R^3$  and  $R^4$  each represent hydrogen.
- 5. (Currently amended) A compound according to any one of claims 1 to 4claim 1, wherein R<sup>5</sup> represents hydrogen or C1 to 6 alkyl and Y represents a direct bond.
- 6. (Currently amended) A compound according to any one of claims 1 to 4claim 1, wherein the group  $-NR^5Y$  together represents a five or six membered saturated or partially unsaturated azacyclic ring, said azacyclic ring optionally incorporating one further heteroatom selected from O,  $S(O)_n$  and N.

Serial No.: To Be Assigned

Filed : Herewith Page : 7 of 13

7. (Currently amended) A compound according to any one of claims 1 to 6 claim 1 wherein L represents a direct bond, O, C2 to 6 alkynyl, C1 to 6 alkyl, C1 to 6 heteroalkyl or C3 to 6 heteroalkynyl.

- 8. (Currently amended) A compound according to any one of claims 1 to 7claim 1, wherein  $G^1$  represents an optionally substituted monocyclic or bicyclic ring structure.
- 9. (Original) A compound according to claim 1 which is selected from the group consisting of:

5-[({4-[(5-chloropyridin-2-yl)oxy]piperidin-1-yl}sulfonyl)methyl]-2,4-dihydro-3H-1,2,4-triazol-3-one;

5-[2-({4-[(5-chloropyridin-2-yl)oxy]piperidin-1-yl}sulfonyl)ethyl]-2,4-dihydro-3H-1,2,4-triazol-3-one;

5-[3-({4-[(5-chloropyridin-2-yl)oxy]piperidin-1-yl}sulfonyl)propyl]-2,4-dihydro-3H-1,2,4-triazol-3-one;

 $5-(\{[4-(4-chlorophenyl)piperazin-1-yl]sulfonyl\}methyl)-2, 4-dihydro-3H-1, 2, 4-triazol-3-one;$ 

5-({[4-[(2-methoxypyrimidin-5-yl)ethynyl]-3,6-dihydropyridin-1(2H)-yl]sulfonyl}methyl)-2,4-dihydro-3H-1,2,4-triazol-3-one;

5-({[4-{[2-(trifluoromethyl)pyrimidin-5-yl]ethynyl}-3,6-dihydropyridin-1(2H)-yl]sulfonyl}methyl)-2,4-dihydro-3H-1,2,4-triazol-3-one;

5-({[4-[(2-cyclopropylpyrimidin-5-yl)ethynyl]-3,6-dihydropyridin-1(2H)-yl]sulfonyl}methyl)-2,4-dihydro-3H-1,2,4-triazol-3-one;

5-({[4-(4-chlorophenyl)piperidin-1-yl]sulfonyl}methyl)-2,4-dihydro-3H-1,2,4-triazol-3-one; N-benzyl-1-(5-oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)methanesulfonamide;

1-(5-oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)-N-(2-phenylethyl)methanesulfonamide;

 $5-(2-\{[4-(4-chlorophenyl)piperidin-1-yl]sulfonyl\}\ ethyl)-2, 4-dihydro-3H-1, 2, 4-triazol-3-one;$ 

Attorney's Docket No.: 06275-522US1 / 101414-1P US

Applicant: Anders Eriksson et al. Serial No.: To Be Assigned

Filed : Herewith Page : 8 of 13

5-(2-{[4-(4-chlorophenyl)piperazin-1-yl]sulfonyl}ethyl)-2,4-dihydro-3H-1,2,4-triazol-3-one; 5-(3-{[4-(4-chlorophenyl)piperidin-1-yl]sulfonyl}propyl)-2,4-dihydro-3H-1,2,4-triazol-3-one; 5-(3-{[4-(4-chlorophenyl)piperazin-1-yl]sulfonyl}propyl)-2,4-dihydro-3H-1,2,4-triazol-3-one; and pharmaceutically acceptable salts and solvates thereof.

10. (Currently amended) A process for the preparation of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as defined in claim-1 which comprises: reaction of a compound of formula (II)

wherein  $R^{1}$ ,  $R^{2}$ ,  $R^{3}$ ,  $R^{4}$ , X and m are as defined in Claim 1 and  $L^{1}$  represents a leaving group, with a compound of formula (III)

Serial No.: To Be Assigned Filed: Herewith Page: 9 of 13

wherein G<sup>1</sup>, L, Y and R<sup>5</sup> are as defined in Claim 1;

R<sup>1</sup> and R<sup>2</sup> independently represent H or C1 to 6 alkyl; said alkyl being optionally further substituted by an aryl ring or an aromatic heterocyclic ring containing 1 to 3 heteroatoms independently selected from O, S and N; said aromatic ring being optionally further substituted by halogen, CF<sub>3</sub>, C1 to 4 alkyl or C1 to 4 alkoxy;

Each R<sup>3</sup> and each R<sup>4</sup> independently represents H or C1 to 6 alkyl; said alkyl being optionally further substituted by OH, C1 to 4 alkoxy, C1 to 4 alkylthio, amino, N-alkylamino or N,N-dialkylamino;

or R<sup>3</sup> and R<sup>4</sup> are bonded together so as to form a 3 to 7 membered ring; said ring optionally incorporating one heteroatom selected from O, S(O)<sub>q</sub> and N;

m represents an integer 1, 2 or 3;

X represents a group S(O), S(O)<sub>2</sub> or C(=O);

R<sup>5</sup> represents H or C1 to 6 alkyl; said alkyl being optionally further substituted by halogen, OH or C1 to 6 alkoxy;

Y represents a direct bond;

or Y and R<sup>5</sup> are bonded together such that the group -NR<sup>5</sup>Y- together represents a 4 to 7 membered saturated or partially unsaturated azacyclic ring; said azacyclic ring optionally incorporating one further heteroatom selected from O, S(O)<sub>n</sub> and N; said azacyclic ring being

Serial No.: To Be Assigned

Filed : Herewith Page : 10 of 13

optionally benzo fused; said azacyclic ring being optionally substituted by C1 to 6 alkyl, C1 to 6 alkoxy or OH;

## L represents a direct bond;

or L represents O, S(O)<sub>p</sub>, C(O), NR<sup>6</sup>, C(O)NR<sup>6</sup>, NR<sup>6</sup>C(O), C2 to 6 alkynyl, C2 to 6 alkenyl, C1 to 6 alkyl, C1 to 6 heteroalkyl or C3 to 6 heteroalkynyl; said alkyl, alkenyl or alkynyl group being optionally further substituted by halogen, OH or C1 to 6 alkoxy;

n, p and q independently represent an integer 0, 1 or 2;

G<sup>1</sup> represents a monocyclic, bicyclic, tricyclic or tetracyclic group comprising one, two, three or four ring structures each of up to 7 ring atoms; each ring structure being independently selected from cycloalkyl; cycloalkenyl; heterocycloalkyl; unsaturated heterocycloalkyl; aryl; or an aromatic heterocyclic ring containing 1 to 3 heteroatoms independently selected from O, S and N; with each ring structure being independently optionally substituted by one or more substituents independently selected from halogen, hydroxy, CHO, C1 to 6 alkyl, C1 to 6 alkoxy, halo-C1 to 6 alkoxy, amino, N-alkylamino, N,N-dialkylamino, alkylsulfonamino, C2 to 6 alkanoylamino, cyano, nitro, thiol, alkylthio, alkylsulfonyl, alkylaminosulfonyl, C2 to 6 alkanoyl, aminocarbonyl, N-alkylamino-carbonyl, N,N-amino-carbonyl;

wherein any alkyl radical within any substituent may itself be optionally substituted with one or more groups selected from halogen, hydroxy, C1 to 6 alkoxy, halo-C1 to 6 alkoxy, amino, N-alkylamino, N,N-dialkylamino, N-alkylsulfonamino, N-C2 to 6 alkanoylamino, cyano, nitro, thiol, alkylsulfonyl, N-alkylaminosulfonyl, CHO, C2 to 6 alkanoyl, aminocarbonyl, N-alkylaminocarbonyl and carbamate;

Serial No.: To Be Assigned

Filed : Herewith Page : 11 of 13

and wherein any alkyl radical is a C1 to 6 alkyl radical;

and when G<sup>1</sup> is a bicyclic, tricyclic or tetracyclic group, each ring structure is independently joined to the next ring structure by a direct bond, by -O-, by C1-6 alkyl, by C1-6 haloalkyl, by C1-6 heteroalkyl, by C2-6 alkenyl, by C2-6 alkynyl, by sulfone, by CO, by NR<sup>7</sup>CO, by CONR<sup>7</sup>, by NR<sup>7</sup>, by S, or by C(OH), or each ring structure is fused to the next ring structure;

R<sup>6</sup> and R<sup>7</sup> independently represent H or C1 to 6 alkyl;

and when the group -NR <sup>5</sup>Y- represents an azacyclic ring and L represents a direct bond, the group G <sup>1</sup> may also be spiro fused to the azacyclic ring and optionally thereafter forming a pharmaceutically acceptable salt or solvate.

- 11. (Currently amended) A pharmaceutical composition comprising a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 9 claim 1 in association with a pharmaceutically acceptable adjuvant, diluent or carrier.
- 12. (Currently amended) A process for the preparation of a pharmaceutical composition as elaimed in claim 11 comprising a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in claim 1, which comprises mixing a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as defined in any one of claims 1 to 9 claim 1 with a pharmaceutically acceptable adjuvant, diluent or carrier.

13-14. (Cancelled)

Serial No.: To Be Assigned

Filed : Herewith Page : 12 of 13

15. (Currently amended) The method according to claim 17 Use according to claim 14, wherein the obstructive airways disease is asthma or chronic obstructive pulmonary disease.

- 16. (Currently amended) A method of treating a disease or condition mediated by MMP12 and/or MMP9 which comprises administering to a patient a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 9claim 1.
- 17. (Currently amended) A method of treating an obstructive airways disease which comprises administering to a patient a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof as claimed in any one of claims 1 to 9claim 1.